

# Akron Engineering Bureau

## 2007 Annual Report



### City of Akron Department of Public Service

**Donald L. Plusquellic**  
Mayor

**Gerald Holland**  
Service Director

**David J. Celik, P.E.**  
City Engineer

Vision

City Engineer

Design Division

Environmental Division

Construction Division

Administrative Services

Revenue/Expenditures

To: Our Customers

From: Kenneth F. Kostura, P.E.  
Acting City Engineer

Date: June 15, 2008

Re: **Akron Engineering Bureau, 2007**



Enclosed for your review and consideration is the 2007 Akron Engineering Bureau Annual Report.

2007 was another successful and productive year for the Engineering Bureau. Generally, we met our goals for 2007. We began planning for implementation of several technology initiatives, including GIS and an Electronic Document Management System. We continue to work with outside agencies and other governmental units that have common interests, especially related to storm water issues. We also continued our emphasis on training. This has become even more important with the requirement for our Professional Engineers and Surveyors to earn Professional Development Hours as required by the State of Ohio. Cross training is still a priority for us to enhance technical skills and maintain a flexible work force.

In 2007, the Engineering Bureau was successful in attracting outside funds for projects. We received federal funds of over \$8 million from AMATS for transportation projects and we submitted successful Ohio Public Works Commission applications for 4 public improvement projects throughout the City. We also assisted in a successful application for Ohio Job Ready site funds for the White Pond area in the amount of \$1.7 million.

We assisted the Public Utilities Bureau in developing comments for the Water Pollution Control Station National Pollutant Discharge Elimination System permit submitted to the City by the Ohio EPA. We anticipate the final permit being negotiated this year. Another permit we assisted in obtaining is the Storm Water Management Plan (SWMP). The Plan was developed per the requirements of the City's re-issued National Pollutant Elimination System (NPDES) permit for storm water and includes complete and updated versions of the original plan including, but not limited to, a construction program, post construction program, public education and outreach, and public involvement.

2007 was a productive year with the Capital Budget. We bid almost \$26 million worth of projects and processed almost \$26 million in contractor and consultant payments. Some of the notable projects include: completion of the CSO Rack 40/31 project, Highland Square Business District improvements, Cascade Locks Bikeway Phase IIA, two JEDD projects; the Cleveland-Massillon Road and Copley Meadows Pump Stations and the Howard-Ridge-High Street improvements that support the Northside residential development. In addition to these and other projects in the Capital Budget, we administered 8 emergency projects.



# AEB VISION



## **Akron Engineering Bureau (AEB) Vision 2002**

**Our vision is to provide professional engineering services that meet the infrastructure needs of our customers by:**

Planning projects that meet the goals of the City.

Designing projects in a cost effective manner.

Constructing projects in compliance with the contract documents.

### **To reach this vision means:**

Utilizing the experience, education and training of our employees to create a more flexible work force.

Empowering our employees to manage projects more independently.

Use of innovative plan development, design and construction techniques to minimize project costs.

Maintaining the highest level of ethics and professionalism.

### **Long Term Vision Affirmation**

**We will affirm and re-enforce our vision by operating the AEB with the following philosophy:**

Reduce the need for supervision by creating additional Engineering Technician III and Civil Engineer III promotional opportunities, and filling those positions with capable and motivated employees who can independently coordinate all aspects of a project.

Assign employees based on:

- The overall needs of the AEB.
- The experience level necessary to administer the specific project.
- The opportunity to diversify the experience of the workforce.
- The expectation of minimizing project costs.

Rotate employees between the Design/Environmental Division and the Construction Division so that all employees become proficient in both project design and construction administration.

Maintain the proper balance between in-house design and consultant design.

Determine and monitor overhead rates including project development and programming costs in order to fully understand the cost-effectiveness of the AEB.

### **Administrative Services**

**Kenneth F. Kostura PE**  
(330) 375-2355 Fax (330) 375-2288  
kostuke@ci.akron.oh.us

### **Construction Division**

**James P. Weber PE**  
(330) 375-2740 Fax (330) 375-2344  
weberji@ci.akron.oh.us



### **City Engineer**

**David J. Celik PE**  
Department of Public Service  
Akron Engineering Bureau  
166 South High Street, Akron, Ohio 44308-1652  
(330) 375-2355 Fax (330) 375-2288  
AkronEngineering@ci.akron.oh.us

### **Design Division**

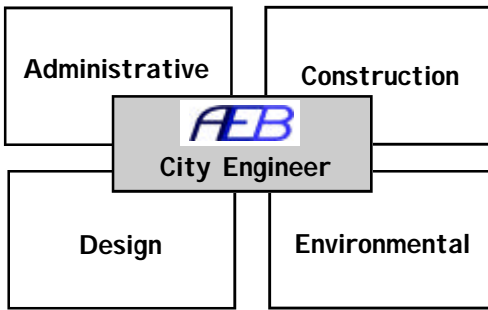
**Michael L. Madonio PE**  
(330) 375-2160 Fax (330) 375-2353  
madonmi@ci.akron.oh.us

### **Environmental Division**

**Patrick D. Gsellman PE**  
(330) 375-2357 Fax (330) 375-2288  
gsellpa@ci.akron.oh.us



**CSO Rack 40**



# City Engineer

## Core Functions

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The Akron Engineering Bureau is responsible for the planning, design and construction of the public improvement projects of the City of Akron. Our goal is to produce high quality projects on schedule and within budget. The Akron Engineering Bureau provides an opportunity for a wide variety and diverse experience in the design and construction of civil engineering and public works infrastructure projects. In 2007, the Akron Engineering Bureau awarded \$ 26 million worth of public improvement projects. The Bureau also paid out \$26 million in construction and consultant payments during the year. The types of projects include: street and sidewalk reconstruction; bridge maintenance and reconstruction; parks, playgrounds and athletic fields; building construction and rehabilitation; and public utilities (water, storm and sanitary sewer system improvements).

Our employees are expected to maintain cooperative working relationships with the public, City Council, the Administration, other City divisions, consulting engineering firms, utility company representatives, contractors, developers, suppliers and federal, state and municipal agencies. While accomplishing our mission, we are expected to maintain the highest level of ethics and professionalism.

The Akron Engineering Bureau is divided into four divisions: Design, Environmental, Construction and Administrative Services. The major activities of each division are listed below.

### **DESIGN DIVISION**

- Programming/Budgeting
- Detail Design
- Project Management
- Public Involvement
- Transportation Program
- Consultant Contract Administration
- Standards and Specifications
- Plan Review
- Surveying
- Mapping
- Subdivision and Plan Review
- Private Development Agreements
- Computer Hardware and Software Support

### **ENVIRONMENTAL DIVISION**

- Detailed Design
- Project Management
- Plan Review
- Storm Water Management
- Sanitary Sewer Evaluation Studies
- Water Pollution Control Station
- Hardy Road Landfill
- Joint Economic Development Districts (JEDD)
- Slope Stability/Erosion Control
- Brownfields
- Facilities Planning / CSO

### **CONSTRUCTION DIVISION**

- Construction Project Administration
- Plan Review
- Materials Testing Laboratory
- Bridge Inspection and Inventory
- Public Involvement

### **ADMINISTRATIVE SERVICES DIVISION**

- Files
- Legislation
- Contract Preparation
- Street Improvement and Street Dedication
- Petition Program
- Underground Records and Central Records
- Service Counter
- Secretarial Staff
- Developer Assistance and Coordination
- Computer Mapping
- Resolving Legal Claims

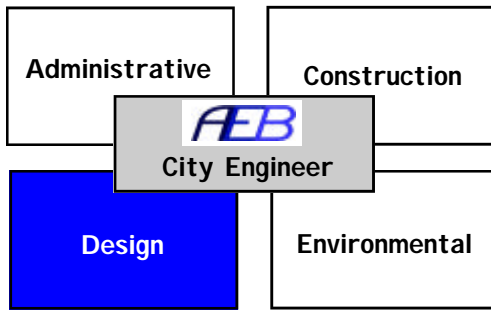




# City of Akron Engineering Bureau

2007





# Design Division



## Core Functions

Programming/Budgeting  
 Detail Design  
 Project Management  
 Public Involvement  
 Transportation Program  
 Consultant Contract Administration  
 Standards and Specifications  
 Plan Review  
 Surveying  
 Mapping

### Subdivision and Plan Review



Jim Anderson Wayne Bachus Travis Capper Jeff Caston Andrew Davis Michelle DiFiore Rick Fischer  
 Alicia Garnett Bob Geiser Jason Harris Dennis Hawthorne Christine Jonke Randy Keirns Mike Madonio  
 Bill Marras Beth Mettle Jeff Miller Dianne Reed Phil Rohr Chad Root Rob Scarlatelli  
 A.J. Smith Adam Staller Sanford Taylor Michael Teodecki Don Vardon Jim Vechery David Wilkerson

# 2007 Goals

Completed revisions to the 2008 Edition of the Construction and Material Specifications Book.

Provide Training for our project managers to track consultant payments for specific contract tasks through the use of a spreadsheet.

## Major Accomplishments

Submitted successful Ohio Public Works Commission applications for public improvement projects throughout the city. These included the following projects:

Bartges Street Bridge over Ohio & Erie Canal  
Mill Street Bridge over CSX Railroad  
Kenilworth Drive (Greenvale to Garman)

Received federal Highway Safety Program funds of \$802,035 from successful application submitted to ODOT for the intersection of South Main Street and Wilbeth Road.

Worked in cooperation with the Summit County Engineer's Office to receive federal Highway Safety Program funds of \$472,500 for the Smith Road/Riverview Road Roundabout.

Completed plans for two phases of Lock 3 North Public Improvements. Construction could begin as early as 2008.

Completed plans for the reconstruction of North Portage Path from Mark Drive to Barcelona Drive. Construction will occur in 2008.

Completed plans for White Pond Drive from 500 north of Mull Avenue to the W&LE Railroad in conjunction with First Energy's new development on White Pond Drive. Construction began in November 2007.

Completed plans for Phase 1 of public improvements in support of the Edgewood Homes Hope VI improvements. Construction is scheduled to occur in 2008.

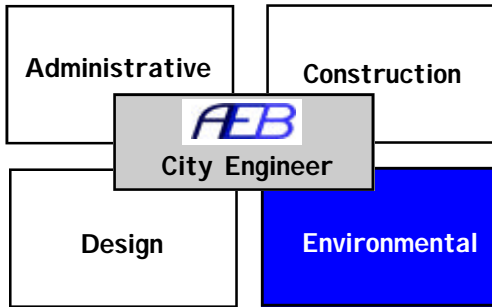
Completed plans for two more sections of the Canal Towpath Trail. The Kenmore Towpath Trail and the Summit Lake Towpath Trail were submitted to ODOT for authorization to advertise. Construction will occur in 2008.

## Training

Engineer As a Leader Seminar  
Masonry Restoration Seminar  
Green Building Design  
ODOT Engineering Conference  
CI PP Presentation  
Waterproofing Seminar  
Project Manager Seminar  
GPS Post Process  
Survey - PLSO Conference

Traffic Calming  
Basic CAD Training  
Business Writing  
AutoCAD Upgrade Training  
EEO  
Documenting Construction Delays  
Bridge Maintenance Program  
Ohio Asphalt Paving Conference  
ESRI GIS Training

Venture Lighting  
Contaminated Soil Treatment  
Do's & Don'ts of Interviewing  
Employment and Labor Law  
PolyCarb Seminar  
Contech Bridge Seminar  
Webinar: Stormwater BMP Design  
RPR Seminar



# Environmental Division



## Core Functions

Detailed Design  
 Project Management  
 Developer Assistance, Coordination  
 and Plan Review  
 Storm Water Management  
 Sanitary Sewer Evaluation Studies  
 Water Pollution Control Station  
 Joint Economic Development Dis-  
 tricts (JEDD)  
 Slope Stability/Erosion Control  
 Brownfields  
 Facilities Planning

Combined Sewer Overflows (CSO)  
 GIS  
 Industrial Park Site Development



Brad Beckert   Scott Davenport   Patrick Gsellman  
 Genny Hanna   Tish Jernigan   Mark Pirie   Jeff VanNatten



# 2007 Goals

Fully utilize Microsoft Office Project for all Environmental Division projects in 2006. This includes planning, resource loading, scheduling, and tracking. Microsoft Office Visio will be used to develop project flow charting.

As a continuation of a 2005 goal, the Environmental Division will expand its participation in area-wide watershed project in the Cuyahoga River watershed and Tuscarawas River watershed. At a minimum, participation will include the following watershed activities:

- Three County MetroParks Activities (2005 goal)
- Summit County PIPE NPDES Storm Water
- Brecksville Dam Removal
- Tusc. River Storm Water Team
- Cuyahoga Valley Communities Council (CVCC)

Develop a centralized consultant file for the Environmental Division that includes brochures, case studies, articles, newsletters consultant and project letters of interest.

## Major Accomplishments

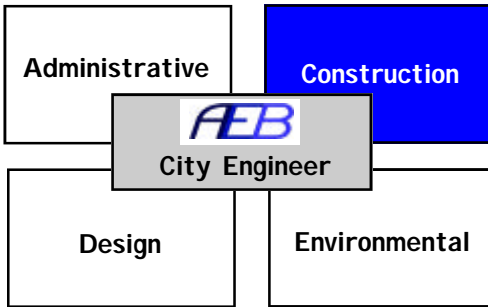
The following is a summary of key accomplishments of the Environmental Division that occurred in 2006.

- Prepared successful Clean Ohio Assessment Fund Cleanup grant application for the Middlebury East project. (\$750,000 grant)
- Completed plans and bid Killian Rd Conlin Rd Water JEDD project.
- Prepared and submitted Storm Water Management Plan document to OEPA for review and approval.
- Completed plans and bid Copley Meadows Pump Station
- Prepared successful Ohio Job Ready Sites grant application for White Pond Office Park (\$1,700,000)

## Training

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"><li>• Design Division Monthly Training – Advanced Geosynthetic Applications, Educational Session on Lime Treated Soil, Forging Highways, Soil Nails &amp; Mitigating Shallow Landslides with Launched Soil Nails, Sierra Scape Retaining Wall System</li><li>• CSO Tunnel Storage and Conveyance Seminar</li><li>• Floyd Browne Group Seminars – Problems to Solutions: Pumps and Pump Stations, New Phase I Environmental Site Assessment Regulations, Rehabilitation of Wastewater Manholes</li></ul> | <ul style="list-style-type: none"><li>• and Structures</li><li>• Webcasts – Understanding the Peak Wet Weather Flow Management Policy, Surviving in a Political Environment, Controlling Construction Site Run-off</li><li>• Stream Investigation, Stabilization, and Design Workshop</li><li>• FMLA Computer Training</li><li>• Tunneling Project Tour, Columbus, Ohio</li><li>• Survey Ethics and Standards</li><li>• Tunnel Symposium</li><li>• Road Safety Web-Cast from APWA</li><li>• Fiber Optic Web-Cast from APWA</li></ul> | <ul style="list-style-type: none"><li>• Asphalt Pavement Materials</li><li>• Arbitration Dispute Resolution Complex Case Analysis</li><li>• AutoCADD, AutoDesk Training</li><li>• Construction RPR Seminar</li><li>• Project Management Seminar</li><li>• GIS Addressing System</li></ul> |
|---|--|---|





# Construction Division



## Core Functions

Construction Project Administration  
Plan Review  
Materials Testing Laboratory  
Bridge Inspection and Inventory  
Public Involvement



Juan Pablo Ascarrunz Mike Brehob Dave Cooke T. Scott Davenport Karen Dyer Rick Falkenstein Fred Fassnacht  
Bill Hahn Jim Hall Jason Harris Mike Huber Kerry Jones Jason Kline Chad Kobelt Richard Kovach  
Bill Magyar Jon Malish Paul McCutcheon Jeff Miller Cory Moke Mark Moore Larry Peaslee Barry Pruitt  
Jody Richards Adam Staller Bill Stump Mike Watt Jim Weber David Wright MikeWytrzyaszczewski Jason Zajac

# 2007 Goals

Update the Resident Project Representative Source Book by March 31, 2007.

Conduct the Resident Project Representative seminar by March 31, 2007.

Continue to monitor Gypsy Moth infestation and work with the Ohio Department of Agriculture to have the highest levels treated by June 15, 2007.

Develop a long-range management strategy for the Emerald Ash Borer infestation by June 15, 2007.

Bid and complete the White Pond Drive Gateway planting by September 30, 2007, pending approval of the beautification grants from ODOT.

## Major Accomplishments

### Economic Development

Copley Road Parking

Five Points Renewal Area

Highland Square Redevelopment

Main Street Building Renovation

Paul Williams Street Parking

South Main Street Parking

Spicertown Public Parking

### Transportation

ADA Access 2006

S. Arlington Street Signalization

Battles Avenue

S. Broadway Street Traffic Signal

Canton Road Signalization

Cuyahoga Street

E. Market Street Signalization

Perkins Street Signalization

Tallmadge Avenue Signalization

### Facilities

Vital Statistics Office Improvement

Fire Maintenance Roof Replacement

Stubbs Justice Center Garage

West Side Depot Roof Replacement

Municipal Building Security

Stubbs Property Room Expansion

Facilities, continued

Morley Restrooms

Fire Station #12 HVAC

Firestone Stadium Improvements

Stubbs Justice Center HVAC

Morley Health Center Room 438

Balch Auditorium Improvements

Evans Ave & MSC Storage Buildings

CitiCenter Parking Deck Repairs

Street Tree Replacement 2007

Summit Lake Maintenance Building

### Parks and Recreation

Tot Lot Rehabilitation 2006

Cascade Locks Bikeway

Elizabeth Park Court Relocation

Forest Lodge Park

Resnik Ballfield

### Utilities

Killian Road Water JEDD

Sanitary Sewer Reconstruction 2005

### Emergency Contracts

Rack 29 Repairs

MI S Air Conditioning Replacement

CSO Rack 13 Outfall Repairs

Global Accelerator Plumbing Repairs

Sherwood Drive Retaining Wall Replacement

Main Street Bus Shelter Removals

O'Neil's Parking Deck Duct Work Repairs

Romig Road Median Removal

### CD Public Improvements

Hope VI Public Improvements: Elizabeth Park, Phase 1

Kenmore Boulevard

Dover Avenue, et al

Parkgate Avenue, et al

Thayer Street

### Residential Streets

Avon Street

Hampton Knoll Drive

Hartford Avenue and Nome Avenue

Laird Street

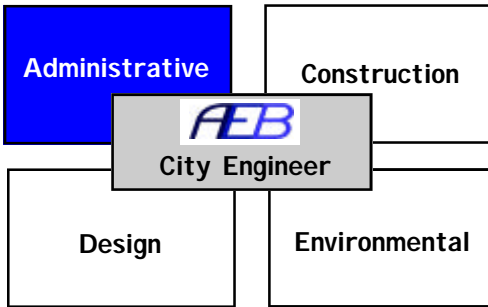
## Training

American Concrete Institute, Concrete Repair Basics  
Construction Management – Green Building  
Construction Scheduling  
Electronic Bidding  
Fundamentals of Construction Contracts in Ohio

Horticultural Training  
LEED for New Construction  
Microsoft Project Workshop  
Ohio Asphalt Paving Conference  
Ohio Certified Nursery Technician Certification  
Ohio Transportation and Engineering Conference

Ohio Tree Care Conference  
Resident Project Representative Seminar  
World of Concrete





# Administrative Services Division



## Core Functions

Legislation Requests  
 Contract Preparation  
 Sidewalk Petition Program  
 Street Improvement Petitions  
 Street Dedication Petitions  
 Private Development Agreements  
 Underground Records  
 Central Records Files  
 Service Counter  
 Secretarial Staff  
 Computer Mapping/GIS



Beverly Carlson Wendy Doyle Linda Fallon Chuck Hirsch Brent Kelley Kenneth Kostura  
 Marianne Kracker Michele Mann Larry Thomas

## 2007 Goals

Update and better organize the information on the Engineering web page by the end of March 2007.

Investigate ways to make the Construction Division filing task more efficient. Implement those ways that are found to be feasible.

Review 57 boxes of as-built drawings to determine if the information has been captured on the record drawings and on the underground record. Obsolete prints will be disposed.

## Training

COMPUSA - Excel 2003 Level 2

COMPUSA - Excel 2003 Level 3

Word 2003 Level 1

Word 2003 Level 2

LiDAR Data Workshop

ODOT Presentation-Appia

RPR Training Seminar

Mistake-free Grammar and Proof Reading

Pervious Concrete

Implementing Design-build in the Public Sector

Deterioration and Repair of Concrete

State Route 8 Phase 1 Improvements

Modern Roundabouts

## Service Levels

In 2007 the Engineering Bureau processed 186 contractor invoices for \$21 million, and 551 consulting invoices for \$5.2 million, totaling \$26.2 million.

The Engineering Bureau awarded and administered 61 construction contracts with 35 different contractors for a total of over \$27.6 million in 2007.

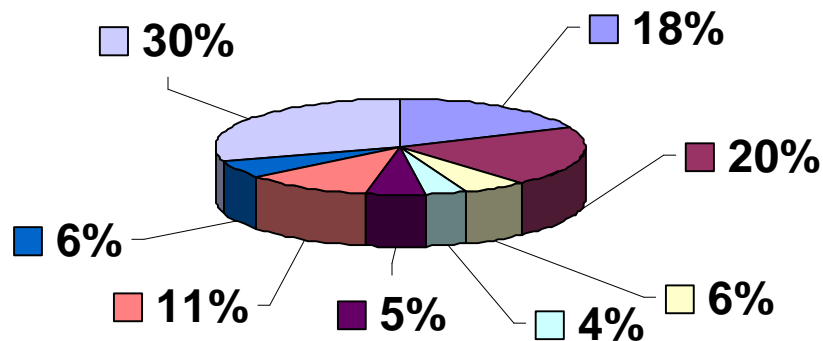
The Engineering Bureau attended 24 public meetings to inform the public about City projects and procedures.

The Administrative Services Division prepared 135 petitions for sidewalk repairs in 2007.

# 2007 Capital Budget

## 2007 Sources of Revenue

- Income Tax
- General Obligation Debt
- Sewer Capital Fund
- Water Capital Fund
- Community Development
- Federal & State Transportation Funds
- Ohio Public Works Commission Funds
- Other



## 2007 Program Expenditures

- Public Utilities
- Transportation
- Economic Development
- Debt Service
- Housing & Human Resources
- Public Facilities
- Parks & Recreation
- Other

